



Product Change Notification: MAAN-31RPPV089

Date:

03-Apr-2025

Product Category:

Memory

Notification Subject:

CCB 7424 Initial Notice: Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for selected 24AA014, 24AA014H, 24AA024, 24AA024H, 24AA025, 24AA025E48, 24AA025E64, 24AA025UID, 24AA044, 24LC014, 24LC014H, 24LC024, 24LC024H, 24LC025, AT24C01C, AT24C02C, AT24C04C, AT24HC02C and AT24HC04B device families of 36.3K technology available various packages.

Affected CPNs:

[MAAN-31RPPV089_Affected_CPN_04032025.pdf](#)

[MAAN-31RPPV089_Affected_CPN_04032025.csv](#)

PCN Status: Initial Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.

Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for selected 24AA014, 24AA014H, 24AA024, 24AA024H, 24AA025, 24AA025E48, 24AA025E64, 24AA025UID, 24AA044, 24LC014, 24LC014H, 24LC024, 24LC024H, 24LC025, AT24C01C, AT24C02C, AT24C04C, AT24HC02C and AT24HC04B device families of 36.3K technology available various packages.

Pre and Post Summary Changes:

	Pre Change			Post Change
Fabrication Site	Microchip Technology Tempe	Microchip Technology	Microchip Technology	Microchip Technology

Reason for Change: To improve manufacturability and on time delivery performance by qualifying a new fabrication location (MCSO - FAB 5).

Change Implementation Status: In Progress

Estimated Qualification Completion Date: May 2025

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Timetable Summary:

	April 2025					May 2025			
Work Week	14	15	16	17	18	19	20	21	22
Initial PCN Issue Date	x								
Qual Report Availability								x	
Final PCN Issue Date								x	

Method to Identify Change: Traceability Code

Qualification Plan: Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History: April 3, 2025: Issued initial notification.

Note: The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable product.

Attachments:

PCN MAAN-31RPPV089_Qual_Plan.pdf

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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If you wish to [change your PCN profile, including opt out](#), please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

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Affected Catalog Part Numbers (CPN)

24LC014HT-I/ST

24AA014HT-I/ST

24LC014HT-E/ST

24AA044-E/SN

24AA044-I/SN

24AA044T-I/SN

24AA044T-E/SN

24AA044-E/MS

24AA044-I/MS

24AA044T-I/MS

24AA044T-E/MS

24LC024-E/MS

24LC024-I/MS

24AA024-I/MS

24LC024T-I/MS

24AA024T-I/MS

24LC024T-E/MS

24LC025-E/MS

24LC025-I/MS

24AA025-I/MS

24LC025T-I/MS

24AA025T-I/MS

24LC025T-E/MS

24LC014H-E/P

24LC014H-I/P

24AA014H-I/P

24LC024/P

Date: Thursday, April 3, 2025

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24LC024-E/P

24LC024-I/P

24AA024-I/P

24LC014-E/P

24LC014-I/P

24AA014-I/P

24LC024H-E/P

24LC024H-I/P

24AA024H-I/P

24AA025UID-I/P

24AA044-E/P

24AA044-I/P

24LC024-E/MC

24LC024-I/MC

24AA024-I/MC

AT24C04C-PUM

AT24C04C-MAHM-E

AT24C04C-MAHM-T

AT24C02C-MAHM-T

AT24C02C-MAHM-E

AT24HC04BN-SH-B

AT24HC04BN-SH-T

AT24C04C-SSHM-B

AT24C04C-SSHM-T

AT24C01C-MAHM-T

AT24C01C-MAHM-E

AT24C01C-SSHM-B

AT24C01C-SSHM-T

AT24C02C-SSHM-B

AT24C02C-SSHM-T

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AT24C04C-XHM-B

AT24C04C-XHM-T

AT24C02C-XHM-B

AT24C02C-XHM-T

AT24HC02C-SSHM-B

AT24HC02C-SSHM-T

AT24C01C-XHM-B

AT24C01C-XHM-T

AT24C02C-PUM

AT24C01C-PUM

AT24HC04B-TH-B

AT24HC04B-TH-T

AT24HC02C-XHM-B

AT24HC02C-XHM-T

AT24HC04B-PU

AT24HC02C-PUM

24LC014T-I/OT

24AA014T-I/OT

24LC014T-E/OT

24LC025T-I/OT

24AA025T-I/OT

24LC025T-E/OT

24AA025E48T-I/OT

24AA025E64T-I/OT

24AA025UIDT-I/OT

24AA025E48T-E/OT

24AA025E64T-E/OT

AT24C02C-STUM-T

24LC024T-I/MNY

24AA024T-I/MNY

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24LC024T-E/MNY

24LC014T-I/MNY

24AA014T-I/MNY

24LC014T-E/MNY

24LC014HT-I/MNY

24AA014HT-I/MNY

24LC014HT-E/MNY

24LC024HT-I/MNY

24AA024HT-I/MNY

24LC024HT-E/MNY

24LC025T-I/MNY

24AA025T-I/MNY

24LC025T-E/MNY

24LC024/ST

24LC024-E/ST

24LC024-I/ST

24AA024-I/ST

24LC024T/ST

24LC024T-I/ST

24AA024T-I/ST

24LC024T-E/ST

24LC024H-E/ST

24LC024H-I/ST

24AA024H-I/ST

24LC024HT-I/ST

24AA024HT-I/ST

24LC024HT-E/ST

24LC025/ST

24LC025-E/ST

24LC025-I/ST

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24AA025-I/ST

24LC025T-I/ST

24AA025T-I/ST

24LC025T-E/ST

24LC024/SN

24LC024-E/SN

24LC024-I/SN

24AA024-I/SN

24LC024T/SN

24LC024T-I/SN

24AA024T-I/SN

24LC024T-E/SN

24LC025/SN

24LC025-E/SN

24LC025-I/SN

24AA025-I/SN

24LC024T-I/MC

24AA024T-I/MC

24LC024T-E/MC

24LC025-E/MC

24LC025-I/MC

24AA025-I/MC

24LC025T-I/MC

24AA025T-I/MC

24LC025T-E/MC

24LC014-E/MC

24LC014-I/MC

24AA014-I/MC

24LC014T-I/MC

24AA014T-I/MC

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24LC014T-E/MC

AT24C04C-STUM-T

AT24C01C-STUM-T

24LC014H-E/MS

24LC014H-I/MS

24AA014H-I/MS

24LC014HT-I/MS

24AA014HT-I/MS

24LC014HT-E/MS

24LC024H-E/MS

24LC024H-I/MS

24AA024H-I/MS

24LC024HT-I/MS

24AA024HT-I/MS

24LC024HT-E/MS

24LC025/P

24LC025-E/P

24LC025-I/P

24AA025-I/P

24LC014-E/MS

24LC014-I/MS

24AA014-I/MS

24LC014T-I/MS

24AA014T-I/MS

24LC014T-E/MS

24AA044T-I/MUY

24AA044T-E/MUY

24AA044-E/ST

24AA044-I/ST

24AA044T-I/ST

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24AA044T-E/ST

24LC025T/SN

24LC025T-I/SN

24AA025T-I/SN

24LC025T-E/SN

24LC014-E/SN

24LC014-I/SN

24AA014-I/SN

24LC014T-I/SN

24AA014T-I/SN

24LC014T-E/SN

24LC014H-E/SN

24LC014H-I/SN

24AA014H-I/SN

24LC014HT-I/SN

24AA014HT-I/SN

24LC014HT-E/SN

24LC024H-E/SN

24LC024H-I/SN

24AA024H-I/SN

24LC024HT-I/SN

24AA024HT-I/SN

24LC024HT-E/SN

24AA025E48-E/SN

24AA025E64-E/SN

24AA025E48-I/SN

24AA025E64-I/SN

24AA025UID-I/SN

24AA025E48T-I/SN

24AA025E64T-I/SN

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24AA025UIDT-I/SN

24AA025E48T-E/SN

24AA025E64T-E/SN

24LC014-E/ST

24LC014-I/ST

24AA014-I/ST

24LC014T-I/ST

24AA014T-I/ST

24LC014T-E/ST

24LC014H-E/ST

24LC014H-I/ST

24AA014H-I/ST



QUALIFICATION PLAN SUMMARY

PCN #: MAAN-31RPPV089

**Date:
February 12, 2025**

Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for selected 24AA014, 24AA014H, 24AA024, 24AA024H, 24AA025, 24AA025E48, 24AA025E64, 24AA025UID, 24AA044, 24LC014, 24LC014H, 24LC024, 24LC024H, 24LC025, AT24C01C, AT24C02C, AT24C04C, AT24HC02C and AT24HC04B device families of 36.3K technology available various packages.

Purpose: Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for selected 24AA014, 24AA014H, 24AA024, 24AA024H, 24AA025, 24AA025E48, 24AA025E64, 24AA025UID, 24AA044, 24LC014, 24LC014H, 24LC024, 24LC024H, 24LC025, AT24C01C, AT24C02C, AT24C04C, AT24HC02C and AT24HC04B device families of 36.3K technology available various packages.

CCB No.: 7424

Test	Number of Lot/s	Sample Size (per lot)	Total Samples	Conditions
ELFR	1	800	800	48 hours @ 125°C
END/HTOL	1	77	77	100k @ 85°C
				1008 hr @ 125°C
END/RET	1	231	231	100k @ 85°C
				168 hr @ 175°C
				504 hr @ 175°C
CDM	1	18	18	2KV
HBM	1	15	15	4kV
Latch up	1	12	12	105 mA @125°C
LTDR	3	5000	15000	5000 hrs @ room temperature.



QUALIFICATION REPORT SUMMARY

PCN #: MAAN-31RPPV089

**Date:
August 15, 2024**

Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for selected 24AA014, 24AA014H, 24AA024, 24AA024H, 24AA025, 24AA025E48, 24AA025E64, 24AA025UID, 24AA044, 24LC014, 24LC014H, 24LC024, 24LC024H, 24LC025, AT24C01C, AT24C02C, AT24C04C, AT24HC02C and AT24HC04B device families of 36.3K technology available various packages will qualify by similarity (QBS). This is a Q006 Grade 1 Qualification.



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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of Microchip Technology Colorado – Fab 5 (MCSO) as a new fabrication location for selected 24AA014, 24AA014H, 24AA024, 24AA024H, 24AA025, 24AA025E48, 24AA025E64, 24AA025UID, 24AA044, 24LC014, 24LC014H, 24LC024, 24LC024H, 24LC025, AT24C01C, AT24C02C, AT24C04C, AT24HC02C and AT24HC04B device families of 36.3K technology available various packages will qualify by similarity (QBS). This is a Q006 Grade 1 Qualification.
CN	E000202146
QUAL ID	R2400365 Rev. A.
MP CODE	365S6Y9CXC00
Part No.	25CS640T-E/ST
Bonding No.	BD-001423 Rev. 02
CCB No.	6401 and 7424
<u>Package</u>	
Type	8L TSSOP
Package size	4.4 mm
<u>Lead Frame</u>	
Paddle size	98 x 87 mils
Material	C7025
Surface	TPPF
Process	Stamped
Lead Lock	Yes
Part Number	101419997
Treatment	Roughened
<u>Material</u>	
Epoxy	AMK-EP27
Wire	CuPdAu wire
Mold Compound	AMK-MC27
Plating Composition	NiPdAu



MICROCHIP

PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
ANAP243000045.000	MCSO520415094.220	2343GSD
ANAP243000046.000	MCSO520415094.220	2343GSP
ANAP243100001.000	MCSO520415094.220	2344GSU

Result

☒

Pass

☐

Fail

☐

8L TSSOP (4.4 mm) assembled by ANAP pass reliability test per QCI-39000.
This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C
reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020E)	IPC/JEDEC C J-STD- 020E	135	0/135	Pass	
<u>Precondition</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 1)	Electrical Test :+25°C, 85°C and 125°C System: NEXTEST_PT Bake 150°C, 24 hrs System: CHINEE 85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 Electrical Test :+25°C, 85°C and 125°C System: NEXTEST_PT	JESD22- A113	693(0)	693 693 693 0/693	 Pass	Good Devices

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>4.00 grams) Bond Shear (>20.00 grams)		45 (0)	0/45	Pass	
	Stress Condition: -65°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H			231		
	Electrical Test: +85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>4.00 grams) Bond Shear (>20.00 grams)		45 (0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 5.5 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>4.00 grams) Bond Shear (>20.00 grams)		45 (0)	0/45	Pass	
	Stress Condition: +130°C/85%RH, 192 hrs. Bias Volt: 5.5 Volts System: HAST 6000X			231		
	Electrical Test: + 25°C, 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>4.00 grams) Bond Shear (>20.00 grams)		45 (0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PT		231(0)	0/231	Pass	77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 500 hrs System: TPS Bake Oven	JESD22-A103		135		45 units / lot
	Electrical Test : +25°C,85°C and 125°C System: NEXTEST_PT		135(0)	0/135	Pass	
	Stress Condition: Bake 175°C, 1000 hrs System: TPS Bake Oven			135		
Solderability Temp 245°C	Electrical Test : +25°C, 85°C and 125°C System: NEXTEST_PT	J-STD-002	135(0)	0/135	Pass	
	Steam Aging: Temp 93°C,1Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection		22 (0)	22 22 0/22	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Physical Dimensions	Physical Dimension, 10 units / lot from 3 lot	JESD22- B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 4.00 grams)	Mil.Std. 883-2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>20.00 grams)	CDF-AEC- Q100-001	30 (0) bonds	0/30	Pass	